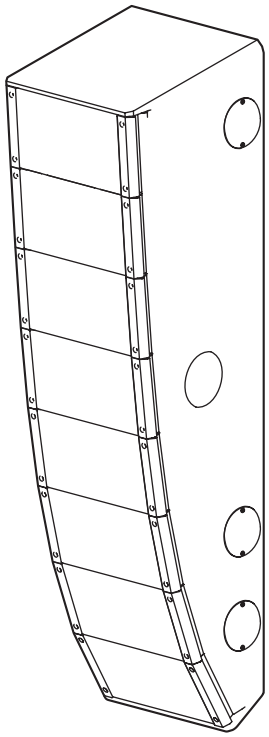
TOA

OPERATING INSTRUCTIONS

LINE ARRAY SPEAKER SR-T5

WALL PAN BRACKET (optional) SR-PB5



Thank you for purchasing TOA's Line Array Speaker.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

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1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ WARNING	Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

When Installing the Unit

- Refer all installation work to the dealer from whom the speaker was purchased. Installation requires extensive technical knowledge and experience. The speaker may fall off if incorrectly installed, resulting in possible personal injury.

- Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.

- Since the unit is designed for in-door use, do not install it outdoors. If installed outdoors, the aging of parts causes the unit to fall off, resulting in personal injury. Also, when it gets wet with rain, there is a danger of electric shock.

- Owing to the unit's size and weight, be sure that at least two persons are available to install the unit. Failure to do so could result in personal injury.

- Do not use other methods than specified to mount the bracket. Extreme force is applied to the unit and the unit could fall off, possibly resulting in personal injuries.

- Attach the safety wire to the unit. If not attached, the unit could fall off, resulting in personal injury.

- Use bolts and nuts that are appropriate for the wall's material and structure. Failure to do so may cause the unit to fall, resulting in material damage and possible personal injury.

- Tighten each nut and bolt securely. Ensure that the bracket has no loose joints after installation to prevent accidents that could result in personal injury.

- Use the specified mounting bracket and matching transformer in combination. Doing otherwise may cause the unit to fall off or generate heat, resulting in personal injury or fire.

- Do not mount the unit in locations exposed to constant vibration. The mounting bracket can be damaged by excessive vibration, potentially causing the unit to fall, which could result in personal injury.

- Avoid installing the speaker in indoor swimming facilities that are not well ventilated. In such locations, the bracket may be vulnerable to corrosion, eventually allowing the speaker to fall resulting in personal injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

When Installing the Unit

- When unpacking or moving the unit, be sure to handle it with two or more persons. Falling or dropping the unit may cause personal injury and/or property damage.
- Avoid touching the unit's sharp metal edge to prevent injury.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Do not operate the unit for an extended period of time with the sound distorting. Doing so may cause the connected speakers to heat, resulting in a fire.
- Do not stand or sit on, nor hang down from the unit as this may cause it to fall down or drop, resulting in personal injury and/or property damage.
- Have the unit checked periodically by the shop from where it was purchased. Failure to do so may result in corrosion or damage to the unit or its mounting bracket that could cause the unit to fall, possibly causing personal injury.
- Avoid connecting to an 83 Ω tap when using the speaker on high impedance 100 V line. Otherwise, heat builds up in the matching transformer, possibly causing a fire.

2. GENERAL DESCRIPTION

The TOA SR-T5 is a 2-way line array speaker in which low- and high-frequency speaker units are arranged vertically within close proximity to each another. Its excellent speech clarity and sturdy impact-resistant construction make it ideal for installation in sports facilities with strong reverberation, such as school gymnasiums.

3. FEATURES

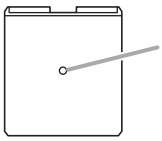
- Two-way line array speaker employs 8 of 13 cm (5.12") woofers and 24 of small tweeters.
- Curved vertical speaker arrangement covers entire audience area with uniform sound volume from front to rear.
- Since the spread of speaker sound is suppressed in the vertical direction, the speaker is not subject to the influence of rear wall or ceiling, allowing clear audio output even in spaces with poor acoustic conditions due to long reverberation.
- Sturdy impact-resistant construction allows the speaker to be used without requiring additional protector grilles, even in gymnasiums.
- Internal two-way passive crossover network circuitry adaptable to single-amplifier operation.
- Supplied mounting bracket permits the speaker's downward angle to be adjusted by 1°, 2°, or 3° from the 0° position (where mounted flat to a wall). Additional use of the optional SR-PB5 Wall Pan Bracket permits either 5 ° or 10° left or right in horizontal angle adjustment.
- Optional MT-S0601 Matching Transformer permits use in high-impedance applications.
- Safety wire supplied to prevent the speaker from falling during installation work and after installation.

4. NOMENCLATURE AND DIMENSIONAL DIAGRAMS

4.1. SR-T5 Line Array Speaker

4.1.1. Speaker

[Top]

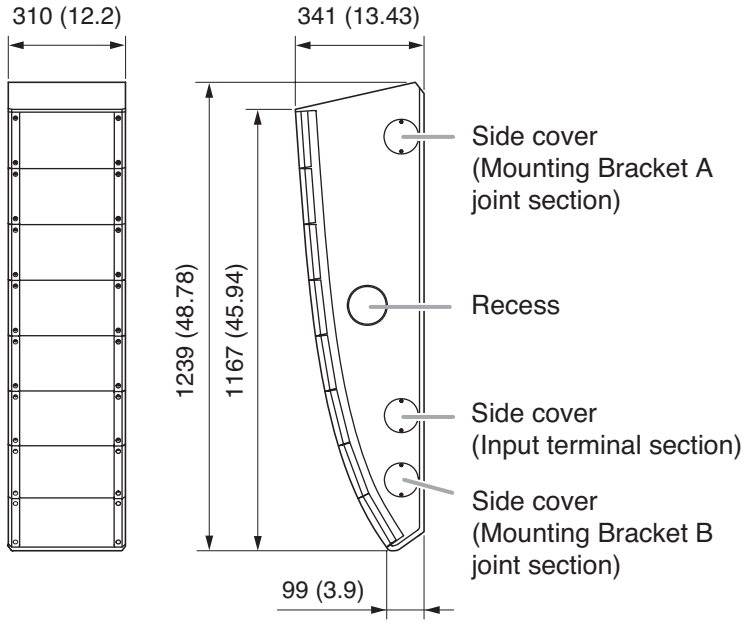


M10 Nut (for suspension use)

Used for temporarily suspending the speaker at installation.
(Refer to p. 15 and p. 21.)

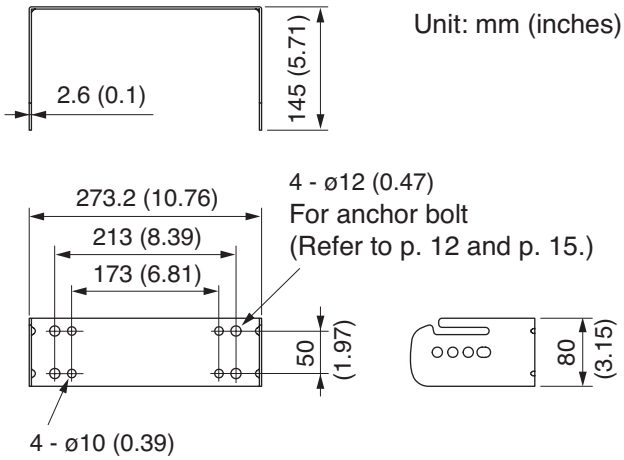
Unit: mm (inches)

[Front] **[Side]** **[Rear]**



4.1.2. Mounting Bracket A (accessory)

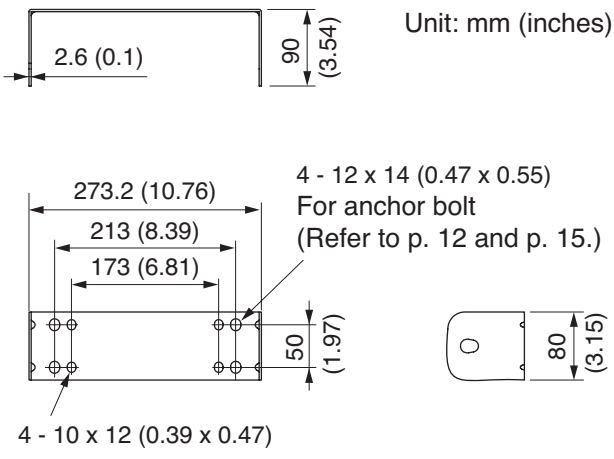
Unit: mm (inches)



Use this hole to joint the optional SR-PB5 Wall Pan Bracket. (Refer to p. 18.)

4.1.3. Mounting Bracket B (accessory)

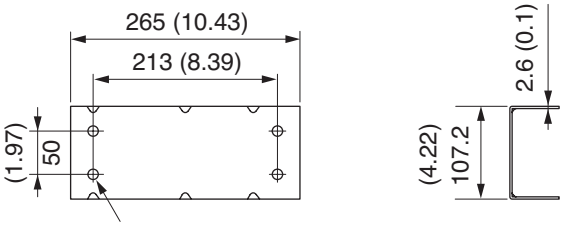
Unit: mm (inches)



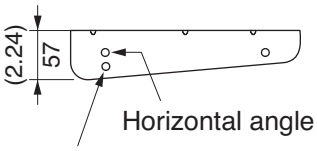
Use this hole to join the optional SR-PB5 Wall Pan Bracket. (Refer to p. 18.)

4.2. SR-PB5 Wall Pan Bracket (Optional)

4.2.1. Pan bracket A (Quantity: 2)



For anchor bolt (Refer to p. 12 and p. 19.)

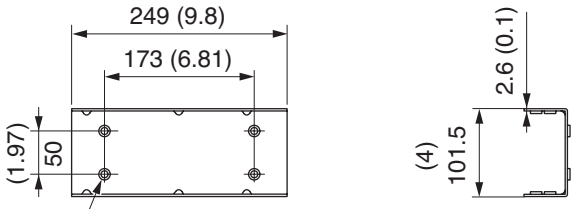


Unit: mm (inches)

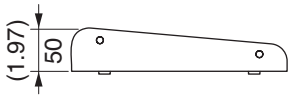
Horizontal angle adjustment hole (for 5°)

Horizontal angle adjustment hole (for 10°)

4.2.2. Pan bracket B (Quantity: 2)



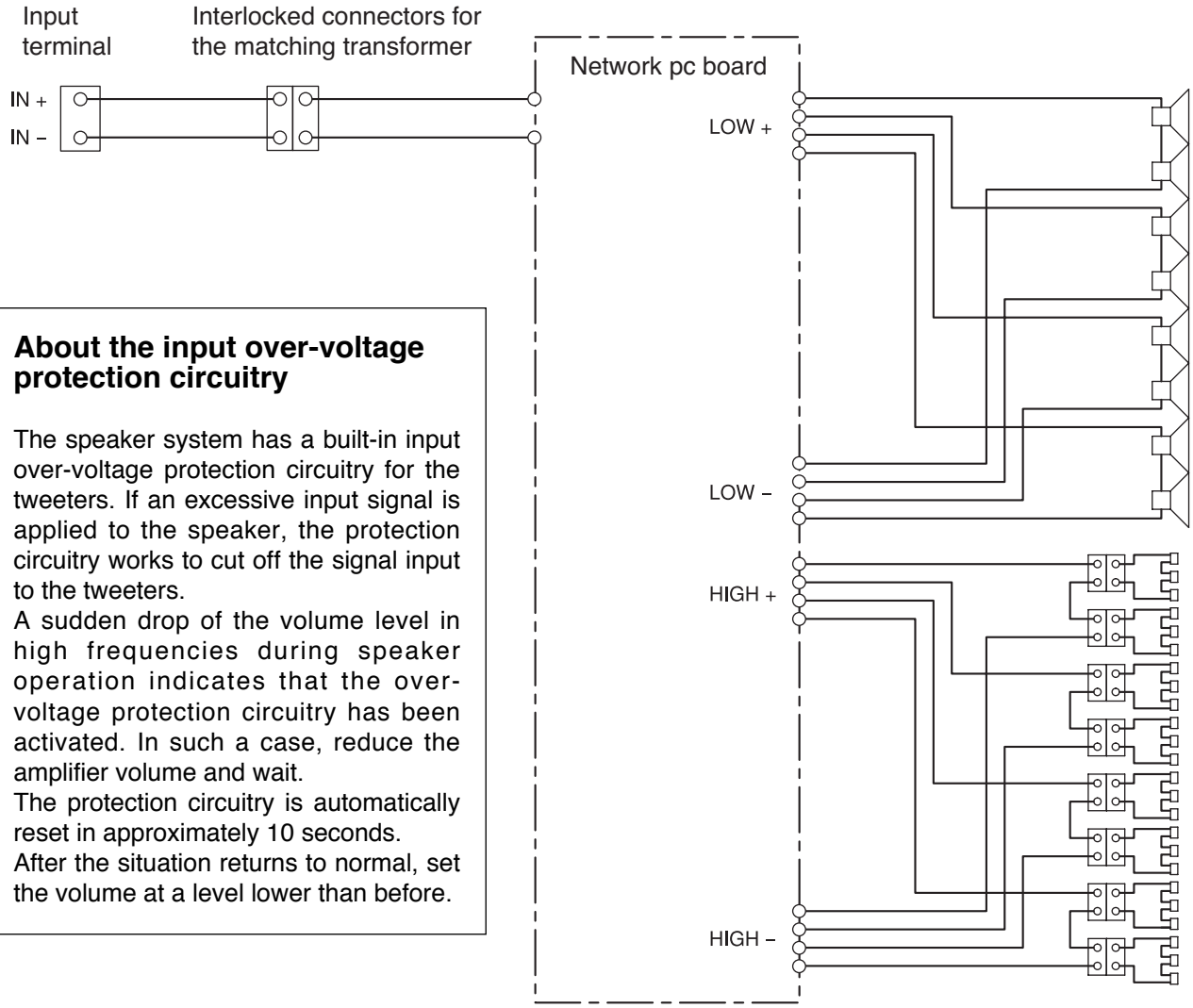
Use this hole to join the bracket supplied with the SR-T5. (Refer to p. 18.)



Unit: mm (inches)

5. INTERNAL WIRING DIAGRAM AND INPUT OVER-VOLTAGE PROTECTION CIRCUITRY

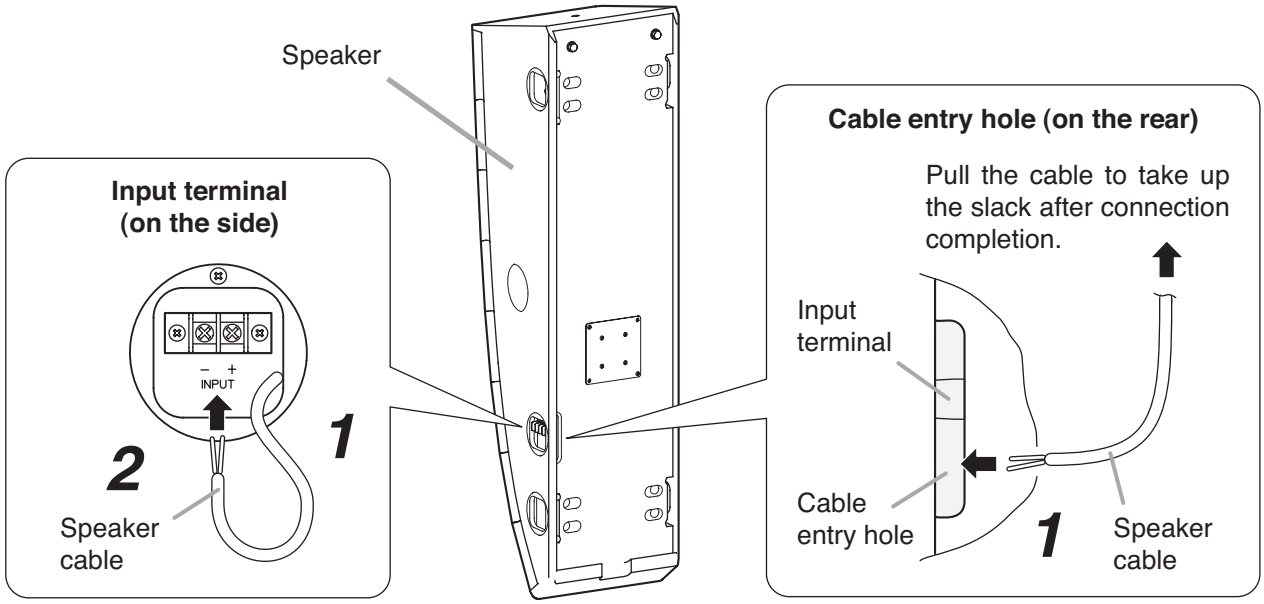
The internal wiring from the input terminal to the speaker units is as shown below.



About the input over-voltage protection circuitry

The speaker system has a built-in input over-voltage protection circuitry for the tweeters. If an excessive input signal is applied to the speaker, the protection circuitry works to cut off the signal input to the tweeters.
A sudden drop of the volume level in high frequencies during speaker operation indicates that the over-voltage protection circuitry has been activated. In such a case, reduce the amplifier volume and wait.
The protection circuitry is automatically reset in approximately 10 seconds.
After the situation returns to normal, set the volume at a level lower than before.

6. INPUT TERMINAL CONNECTION

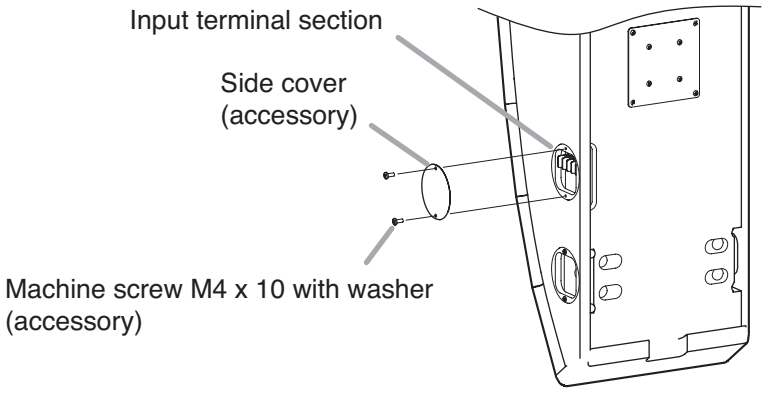


Step 1. Run the speaker cable through the cable entry hole in the speaker's rear panel, then lead it out from the side panel.
Pull out the cable slightly longer than needed from under the input terminal for ease of wiring.

Step 2. Connect the speaker cable to the input terminal.
Pull the speaker cable from the speaker's rear side to take up the slack.

Note
Pay attention to the correct polarity at the time of connection.

Step 3. Attach the supplied side cover.

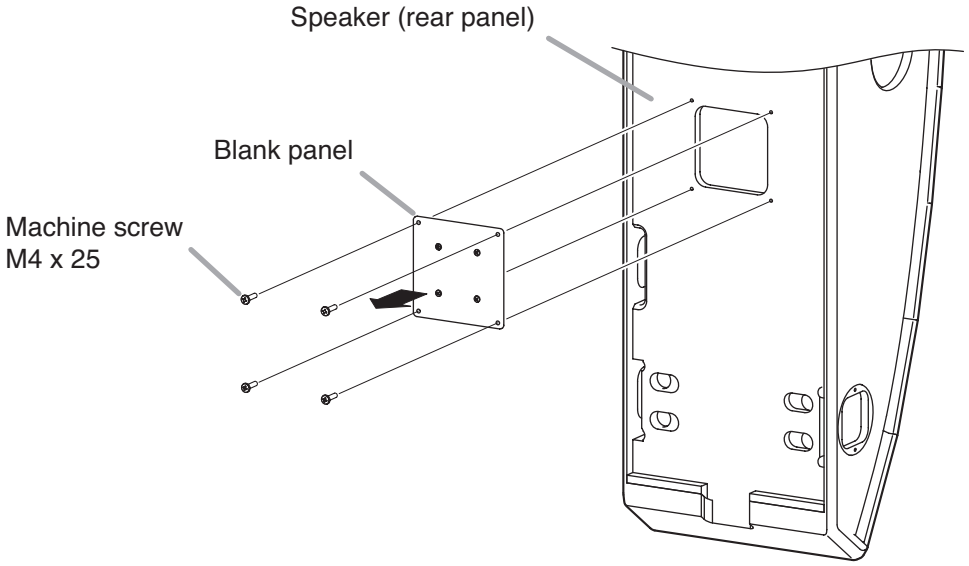


7. CHANGING TO HIGH IMPEDANCE

The speaker can be used for high-impedance application with the installation of the optional MT-S0601 Matching Transformer.
To install the MT-S0601 transformer, remove the blank panel on the speaker's rear panel.

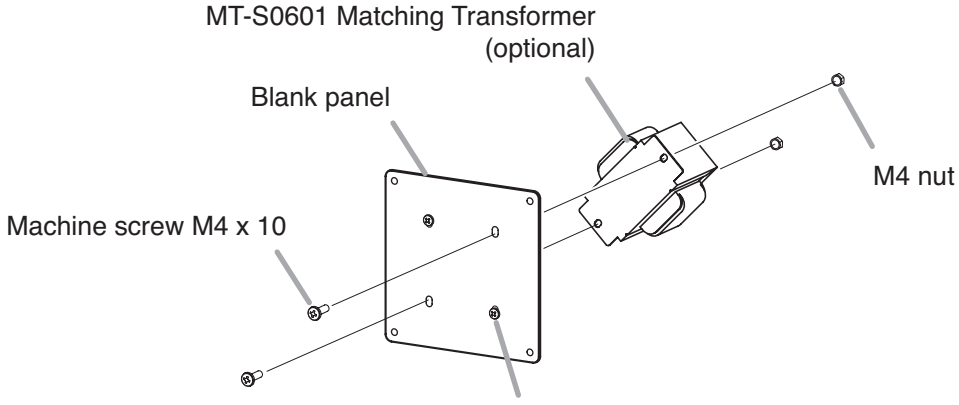
Step 1. Remove 4 screws holding the blank panel and detach the panel.

Note
When removing the blank panel, do not forcibly pull it since the interlocked connectors used to connect the matching transformer is tied to the blank panel's back side.



Step 1. Mount the optional MT-S0601 Matching Transformer to the back side of the blank panel with the machine screws and nuts attached to the blank panel.

Note
Use 2 screw holes located diagonally opposite.

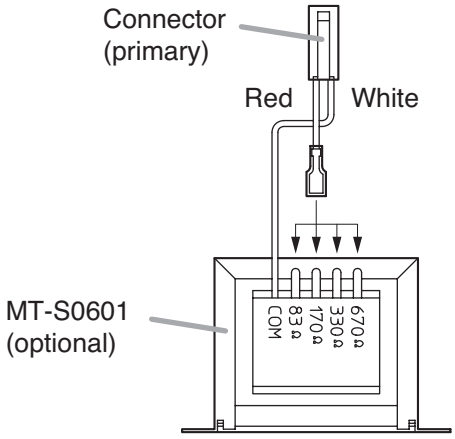


This screw and another at the diagonal position can also be used for mounting the transformer.

Step 3. Connect a lead wire to the desired impedance tap.

> **⚠ CAUTION** Never connect to an 83 Ω tap when using the speaker on high impedance 100 V line. Otherwise, heat builds up in the matching transformer, possibly causing a fire.

Note
Make wiring to the tap before installing the transformer into the speaker. Note that the tap cannot be changed from the outside once the transformer has been installed.

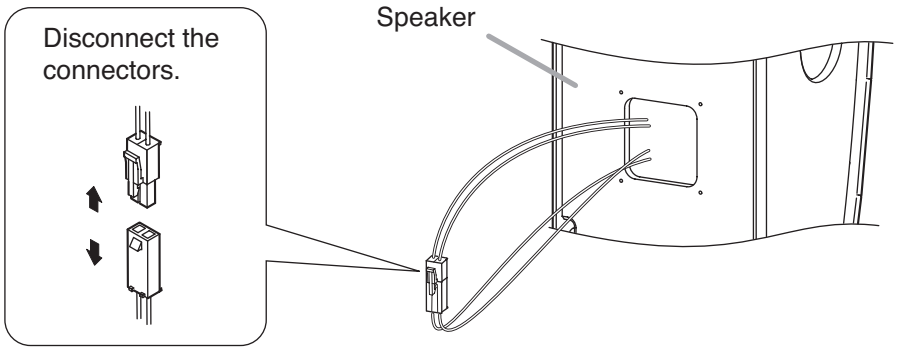


The following table shows usable impedance.

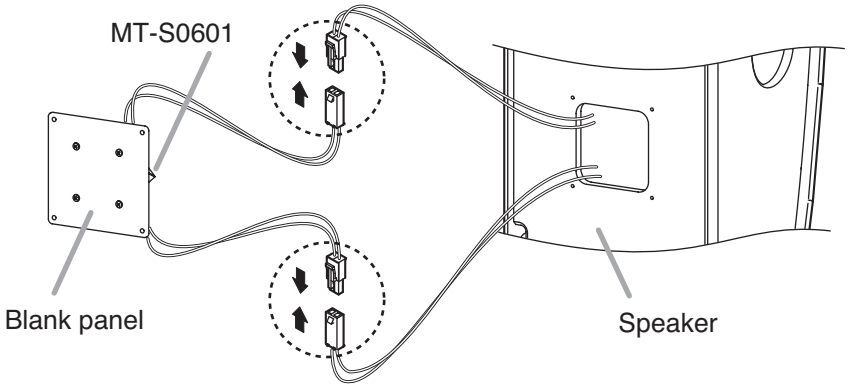
Primary impedance	High impedance 100 V line	High impedance 70 V line
83 Ω	Unusable	60 W
170 Ω	60 W	30 W
330 Ω	30 W	15 W
670 Ω	15 W	7.5 W

Step 4. Disconnect the lead wire connectors and connect them to the matching transformer.

4-1. Pull the connectors out of the speaker and disconnect the interlocked connectors.

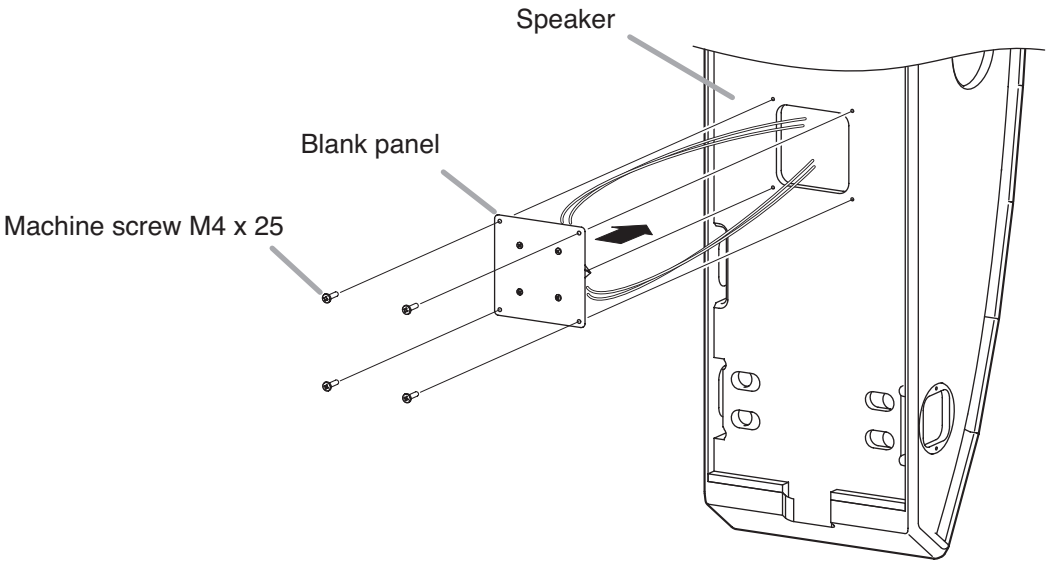


4-2. Connect the removed connectors to the connectors from the transformer.



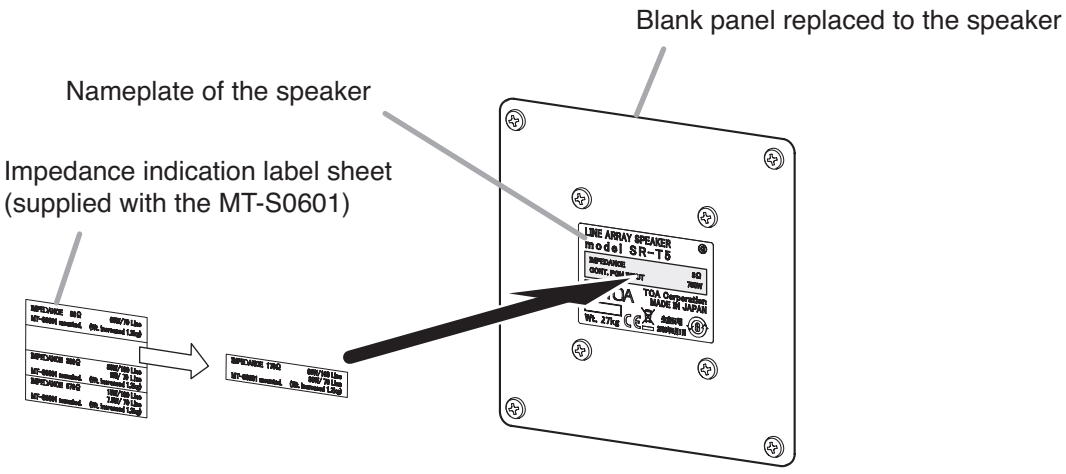
Step 5. Replace the blank panel with the matching transformer fixed in the speaker.

Note
When replacing the blank panel, take care not to pinch the lead wire.



Step 6. Attach the supplied impedance indication label to the given place in the speaker nameplate.

Select the indication label corresponding to the impedance set in step 3 from 4 different labels.

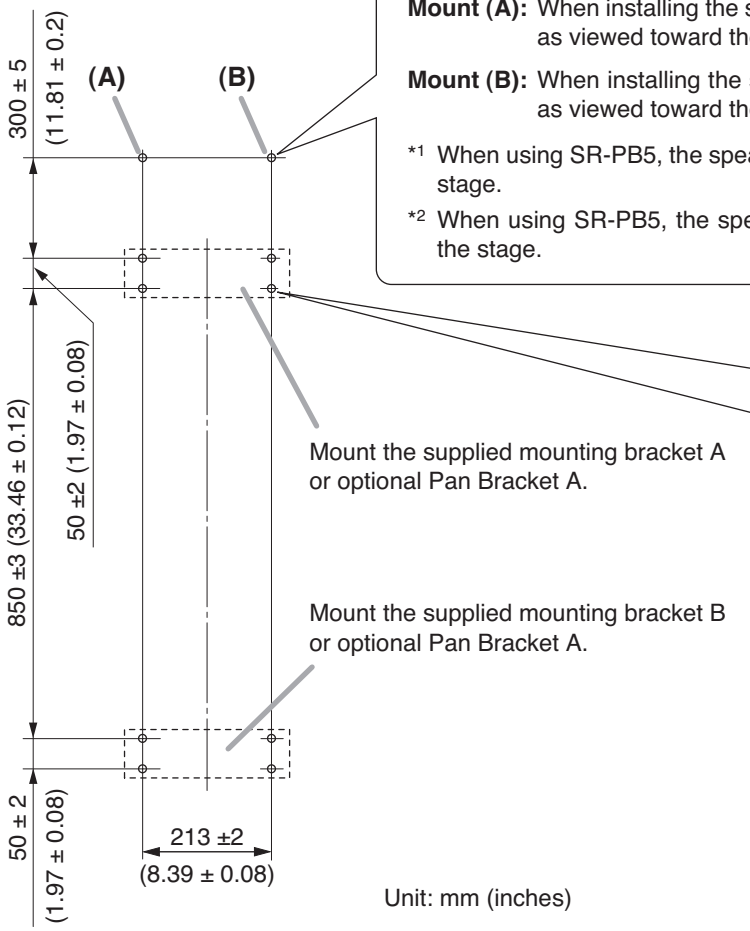


Note
The above figure shows an example for attaching the indication label of 170 Ω.

8. BEFORE INSTALLING THE SPEAKER

Anchor bolts must first be installed when mounting the SR-T5 line array speaker on a wall.

8.1. Anchor Bolt Mounting Dimensions



M10 Safety Wire Anchor Bolt

When using the supplied mounting bracket or the optional SR-PB5 Wall Pan Bracket, the location of the anchor bolt is as follows:

Mount (A): When installing the speaker on the right-hand side*1 of the stage as viewed toward the stage.

Mount (B): When installing the speaker on the left-hand side*2 of the stage as viewed toward the stage.

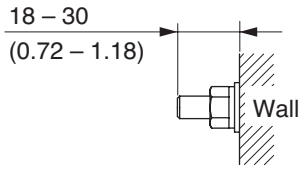
*1 When using SR-PB5, the speaker can be turned left as viewed toward the stage.

*2 When using SR-PB5, the speaker can be turned right as viewed toward the stage.

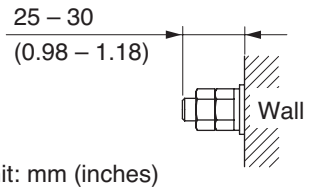
M10 Bracket Anchor Bolt

Be sure that the following bolt lengths project from the wall surface:

[In the case of a single nut]

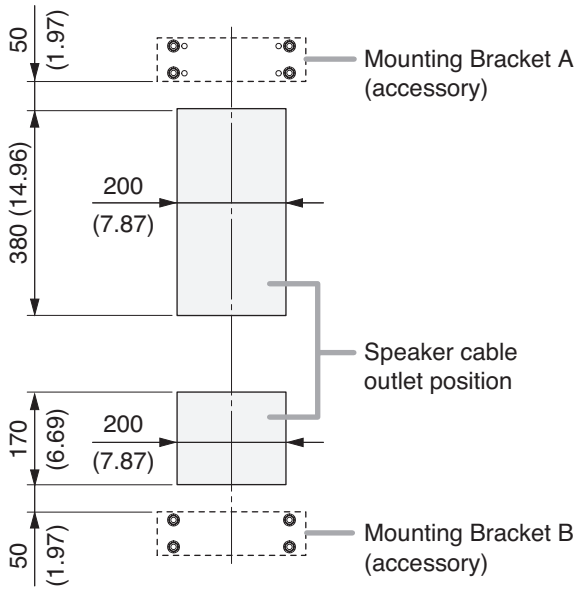


[In the case of a double nut]



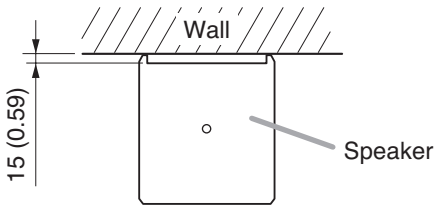
Unit: mm (inches)

8.2. Speaker Cable Outlet Position When Installing the SR-T5 Flat against Wall



Note

The 15 mm (0.59") – high ridges in the back of the speaker provide ample space for speaker wiring.
Even when the speaker is mounted flat against wall, the speaker cable outlet hole in the wall does not need to be aligned with the cable entry hole position.



[Viewed from the upper side]

Unit: mm (inches)

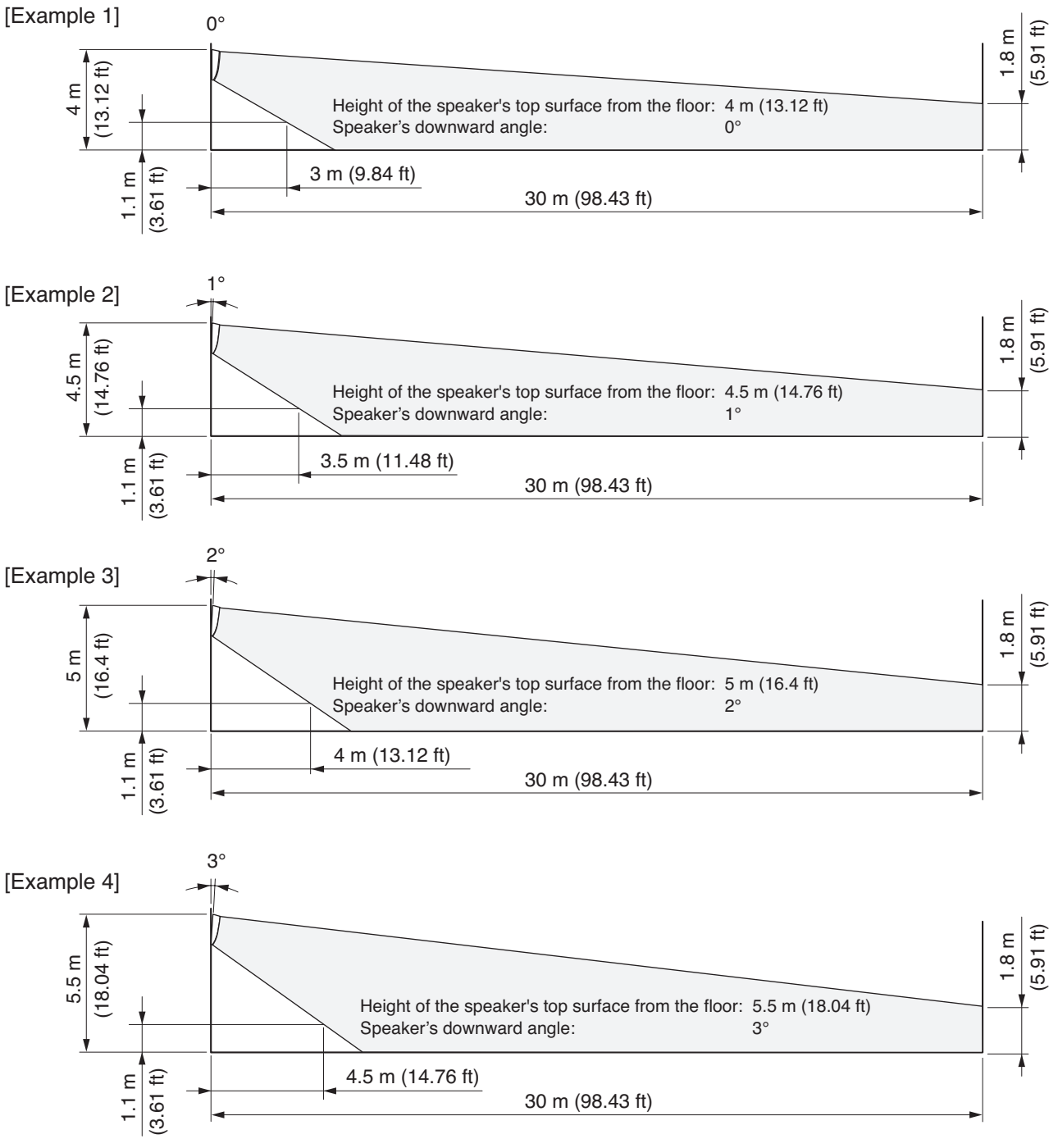
9. MOUNTING TO THE WALL

9.1. When Installing the SR-T5 Using the Supplied Mounting Bracket Only (Downward angle adjustable)

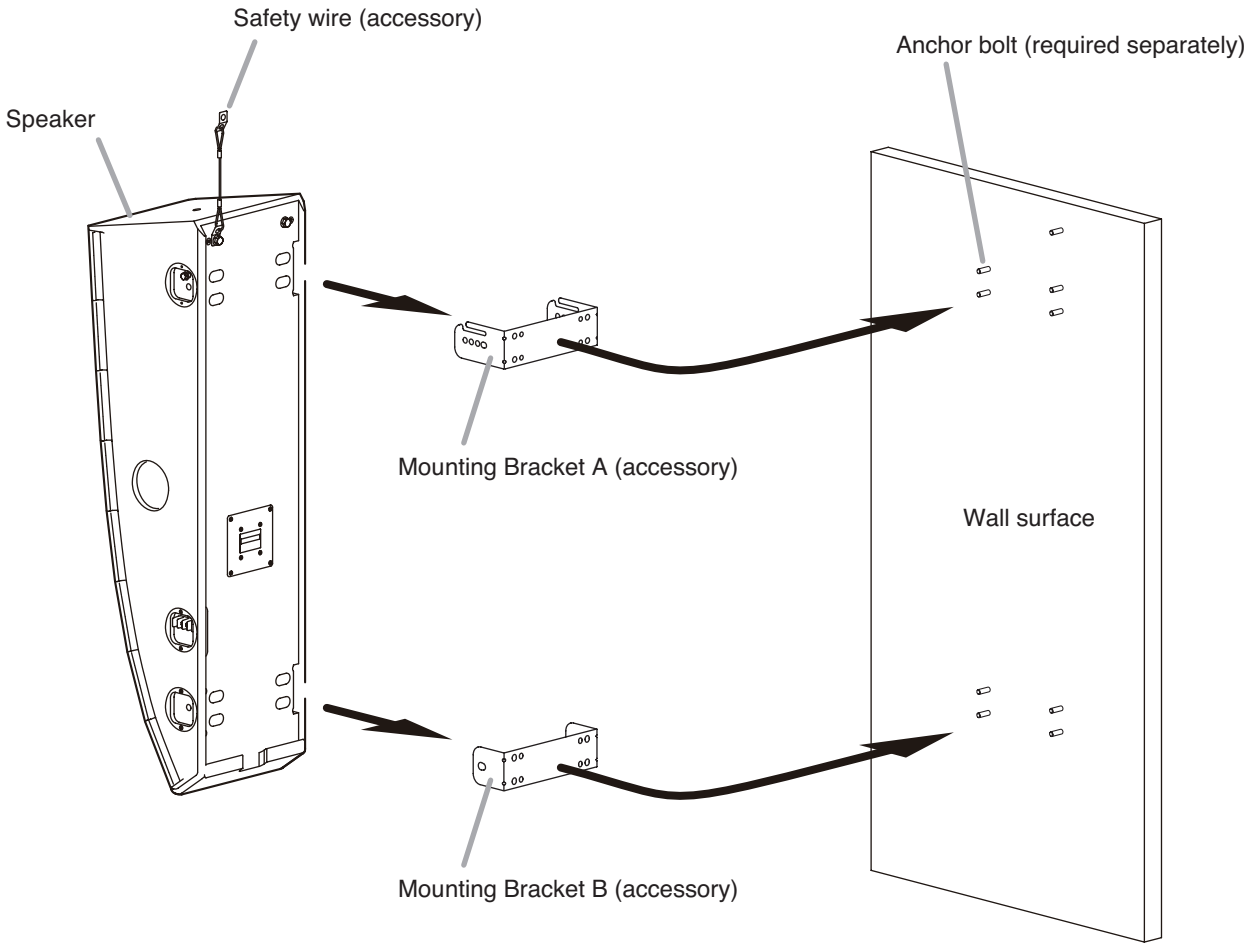
The speaker can be mounted flat or at a downward angle of 1º, 2º, or 3º against wall using the supplied mounting bracket.
The figure below shows examples of the coverage area when the speaker is installed in a gymnasium measuring 20 m (w) x 30 m (l) x 10 m (h) (65.62 ft x 98.42 ft x 32.81 ft).
Use these examples as a guideline for the mounting height of the speaker and its optimum downward angle.

Notes
- The 1.1 m height shown in the figure represents listening height for a sitting person.
- The figures below show the coverage area for a 4 kHz frequency.

9.1.1. Coverage area



9.1.2. Rough installation plan



9.1.3. Installation procedure

The example here shows the procedure to install the speaker on the left side wall as viewed toward the stage.

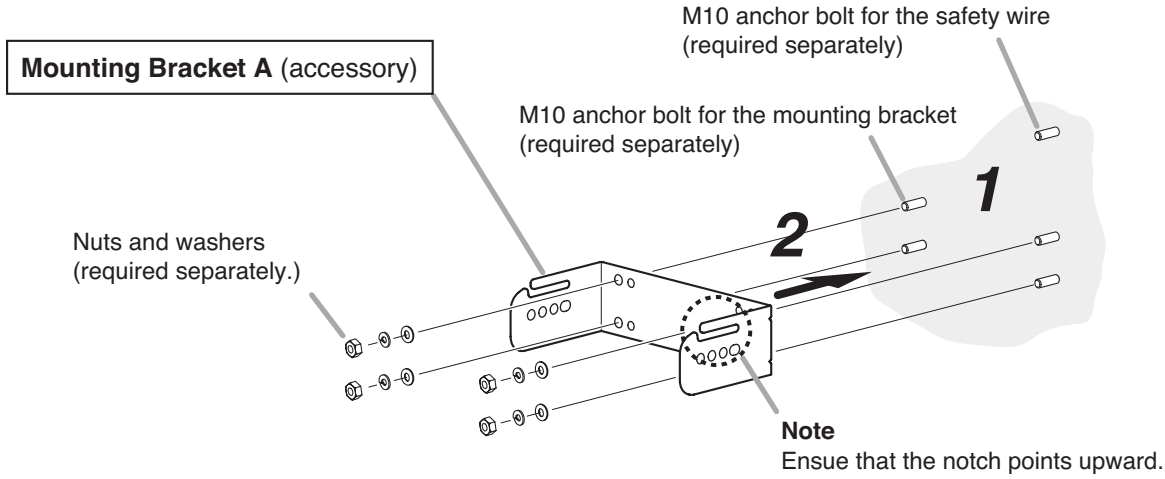
Step 1. Install the anchor bolts for the brackets and safety wire into the wall.
Use M10 anchor bolts.

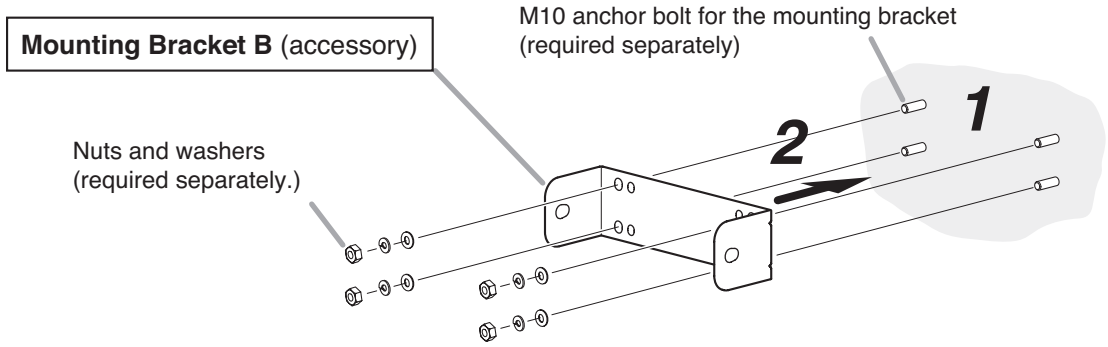
Note: For the anchor bolt mounting position, refer to p. 12, “Anchor Bolt Mounting Dimensions.”

⚠ WARNING

Anchor bolts driven into a wall and their suited nuts are not included. Use bolts and nuts that are appropriate for the wall's material and construction.
Failure to do so may cause the unit to fall, resulting in personal injury.

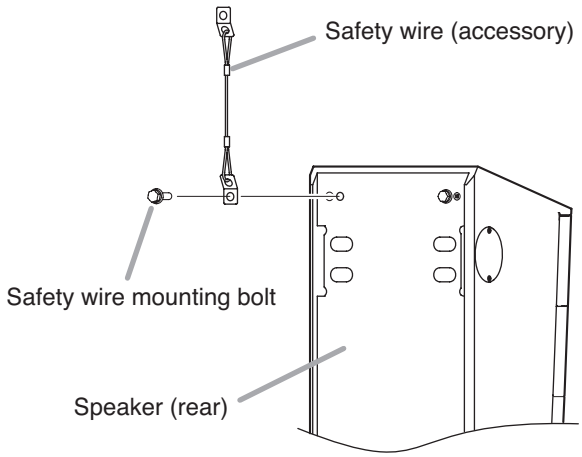
Step 2. Install the supplied mounting brackets on the wall.
Secure the Mounting Bracket A to the upper anchor bolts and the Bracket B to the lower anchor bolts.





Step 3. Attach the supplied safety wire to the speaker.
Remove the safety wire mounting bolt on the speaker's rear panel, then secure the safety wire to the speaker using the removed bolt.

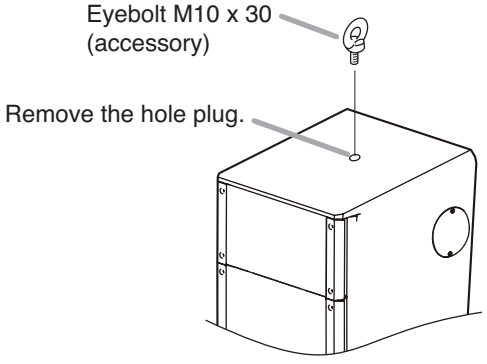
Note
Attach the safety wire on the side facing the safety wire anchor bolt installed in Step 1.



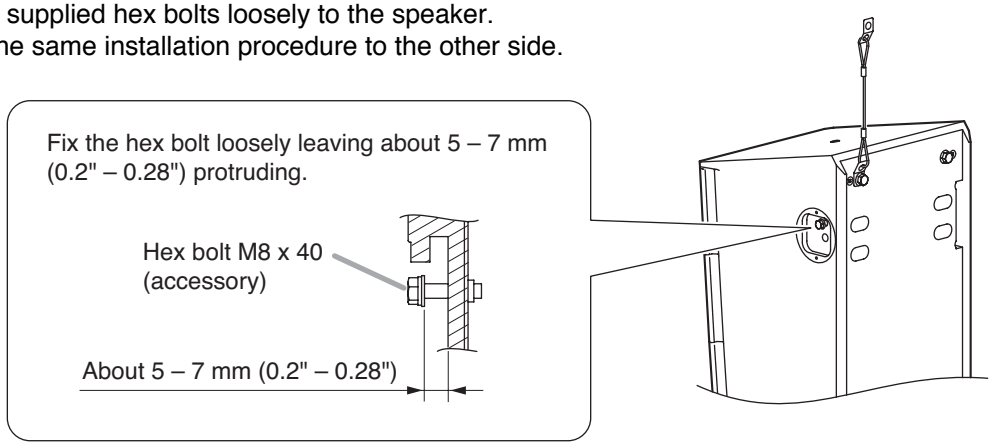
When using the supplied eye bolt at the speaker installation

Remove the hole plug on the speaker's top, then install the supplied eyebolt instead.

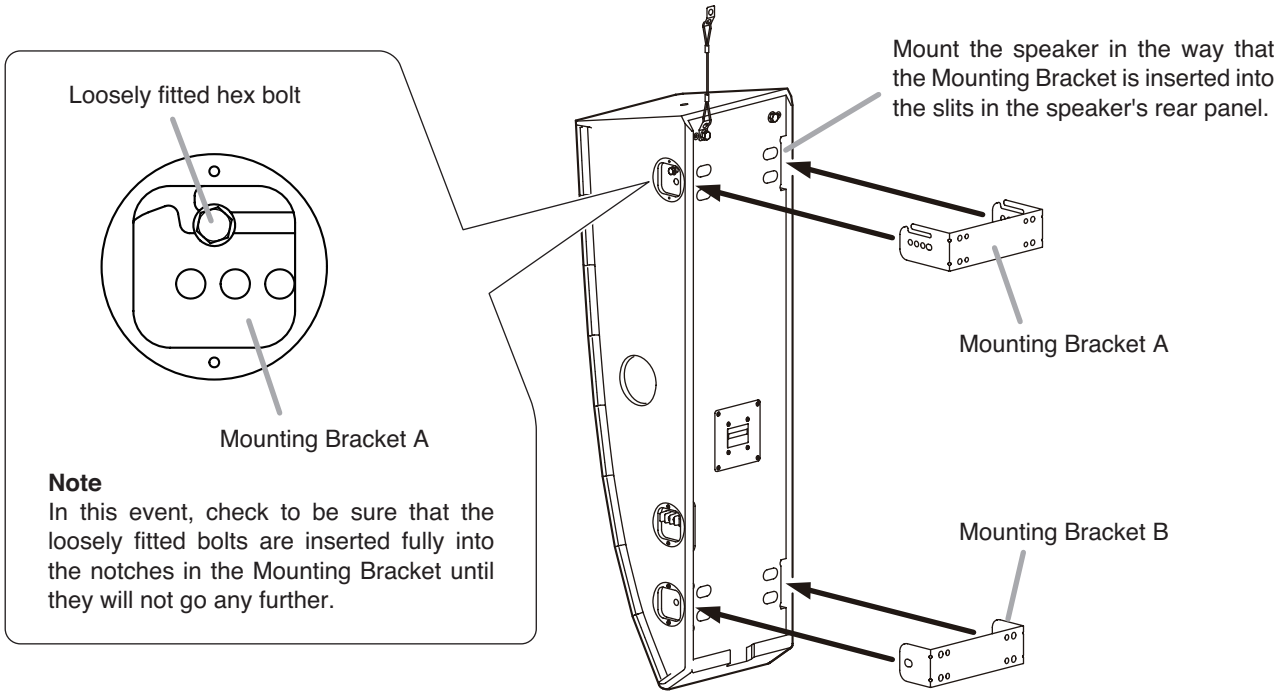
Note
As this eyebolt is for temporarily suspending the speaker at installation, never use this eyebolt for permanent installation of the speaker.



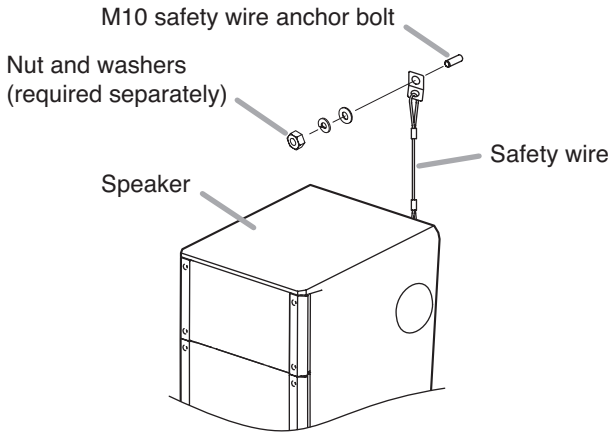
Step 4. Screw 2 supplied hex bolts loosely to the speaker.
Follow the same installation procedure to the other side.



Step 5. Mount the speaker to the mounting brackets.
Mount the speaker in the way that the Mounting Brackets A and B secured to the wall are inserted into the slits in the speaker's rear panel.



Step 6. Install the safely wire to the wall.
Install the end of the safety wire attached to the speaker to the anchor bolt installed on the wall surface.



Step 7. Connect the speaker cable to the input terminal.
For the connection procedure, refer to p. 8, "Input Terminal Connection."

Step 8. Determine the speaker's downward angle, then fix the speaker with the supplied hex bolts.

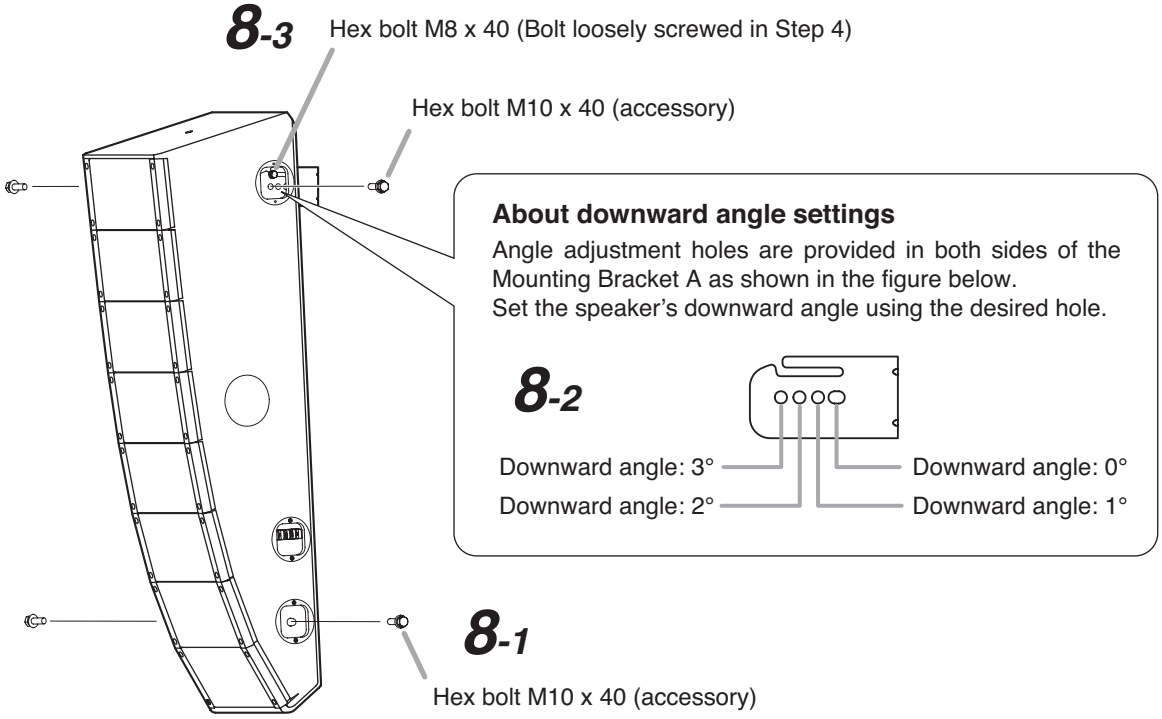
8-1. Fix the Mounting Bracket B (lower side of the speaker) loosely with the supplied hex bolts. Fix it loosely to the extent that the speaker can be inclined when adjusting the speaker angle.

8-2. Adjust the speaker's downward angle with the Mounting Bracket A (upper side of the speaker).

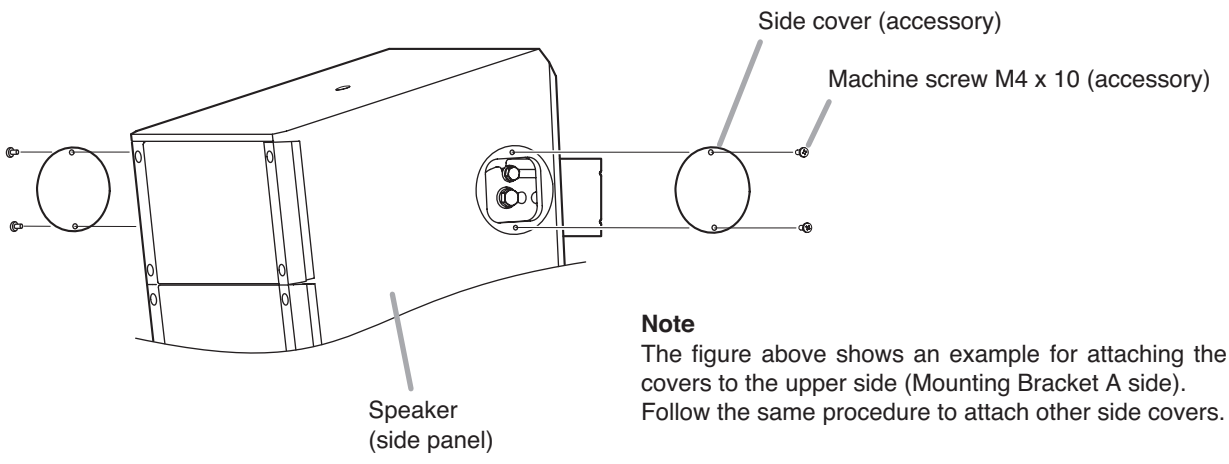
Note: Refer to p. 13, "Coverage area" to determine the downward angle that corresponds to the mounting height of the speaker to be installed.

8-3. Tighten all 6 hex bolts loosely screwed into the Mounting Brackets A and B.

Note: Check that all bolts are securely tightened.



Step 9. Attach the supplied side covers.
Attach the supplied side covers to the upper side (Mounting Bracket A side), the lower side (Mounting Bracket B side), and the input terminal section. (5 points)

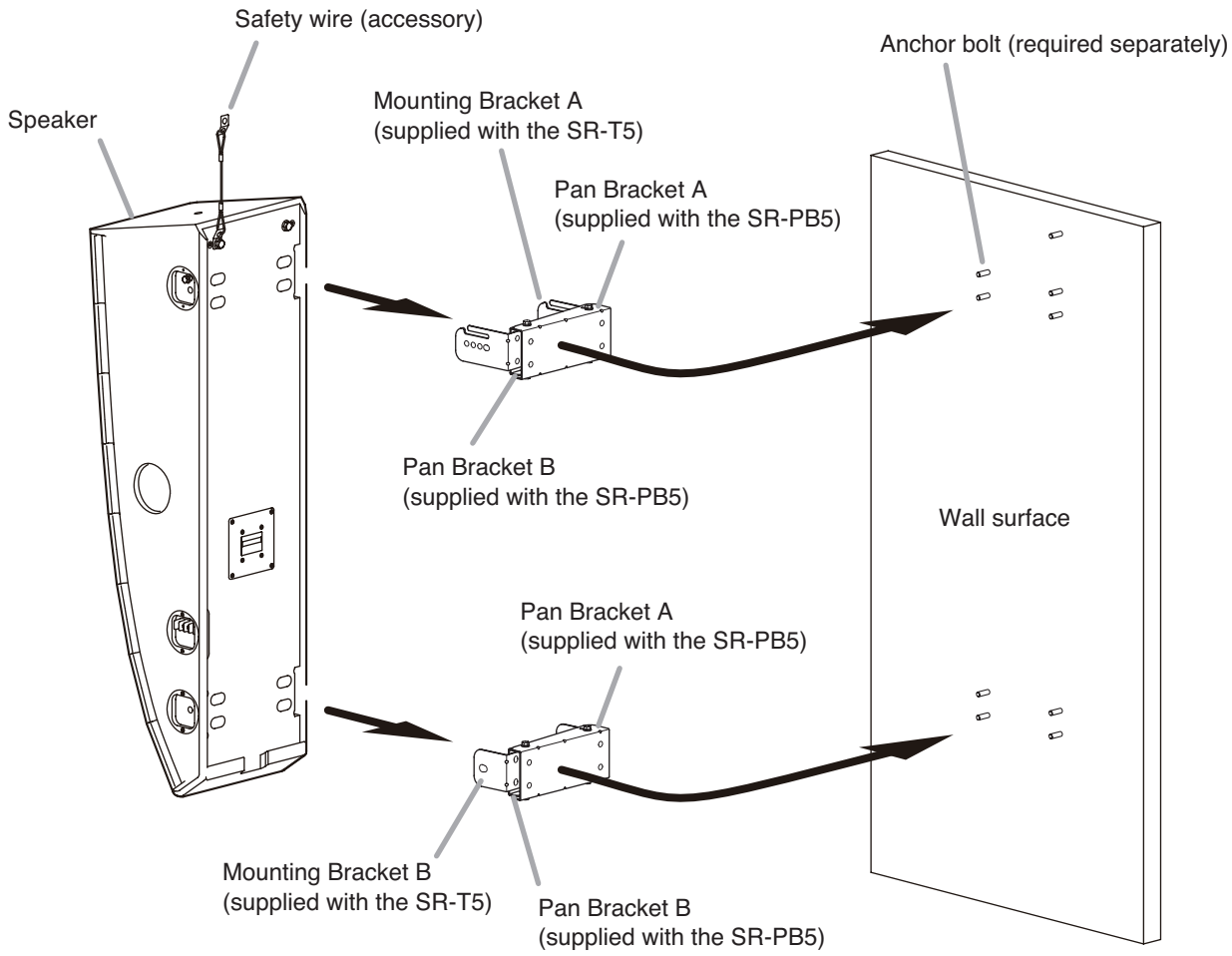


Note
The figure above shows an example for attaching the covers to the upper side (Mounting Bracket A side).
Follow the same procedure to attach other side covers.

9.2. When Installing the Speaker in Conjunction with the Optional SR-PB5 (Both horizontal and downward angles adjustable)

Speaker's horizontal angle can be adjusted to 5° or 10° left or right using the supplied mounting bracket in conjunction with the optional SR-PB5 Wall Pan Bracket.

9.2.1. Rough installation plan



9.2.2. Installation procedure

The example here shows the procedure to install the speaker on the left side wall as viewed toward the stage.

Step 1. Install the anchor bolts for the brackets and safety wire into the wall.
Use the M10 anchor bolts.

Note: For the anchor bolt mounting position, refer to p. 12, “Anchor Bolt Mounting Dimensions.”

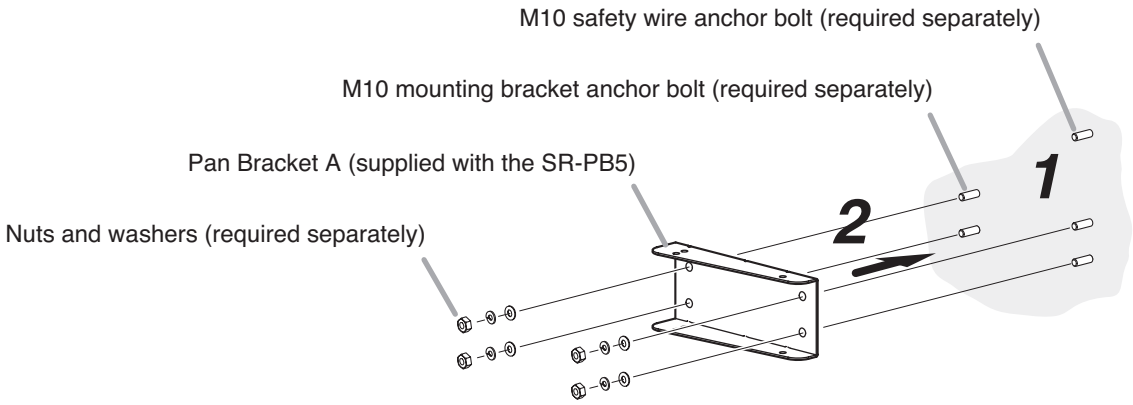
⚠ WARNING

Anchor bolts driven into a wall and their suited nuts are not included. Use bolts and nuts that are appropriate for the wall's material and construction.
Failure to do so may cause the unit to fall, resulting in personal injury.

Step 2. Install 2 SR-PB5's Pan brackets A on the wall.

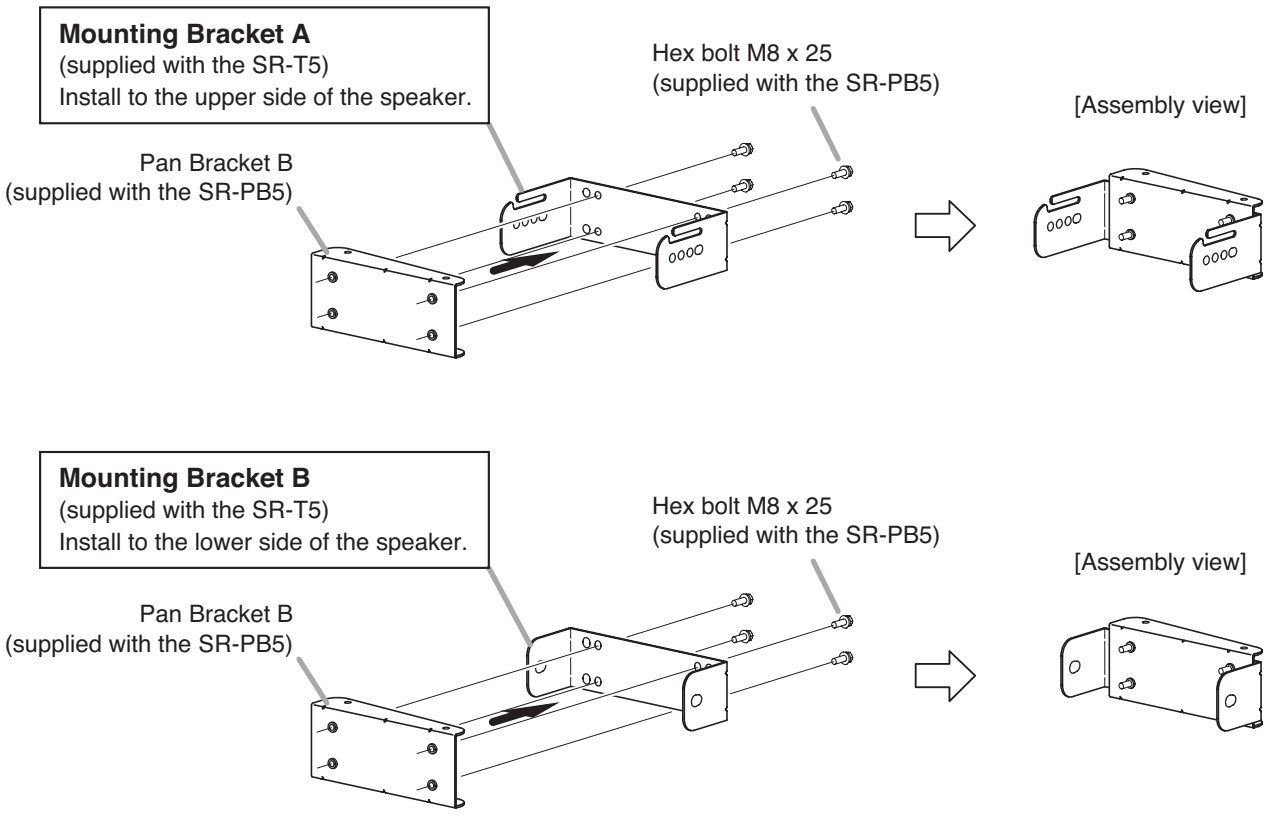
Note
When installing the speaker on the right side wall as viewed toward the stage, position the Pan bracket A upside down.

Tips
- The figure shows an example when installing the Pan Bracket A to the upper anchor bolts installed on the wall surface.
- Follow the same procedure to attach the Pan Bracket A to the lower anchor bolts.



Step 3. Attach 2 SR-PB5's Pan brackets B to the Mounting Brackets A and B supplied with the SR-T5.

Note
When installing the speaker on the right side wall as viewed toward the stage, position each Pan Bracket B upside down.



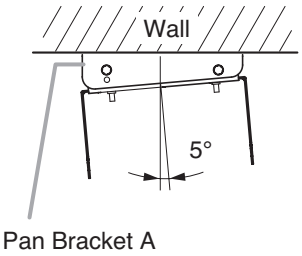
Step 4. Install the Pan Brackets B to the Pan Brackets A secured to the wall.
In this case, set the speaker's horizontal angle.

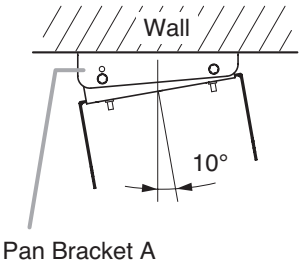
Note: Be sure to set both upper and lower Pan Brackets B at equal angles.

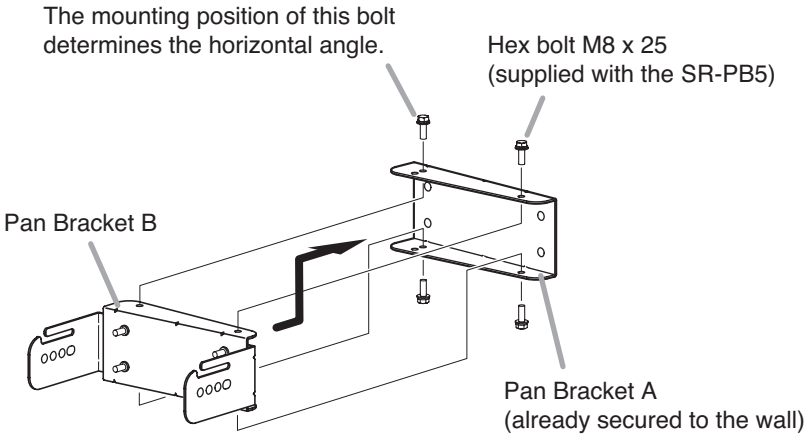
Horizontal angle adjustment

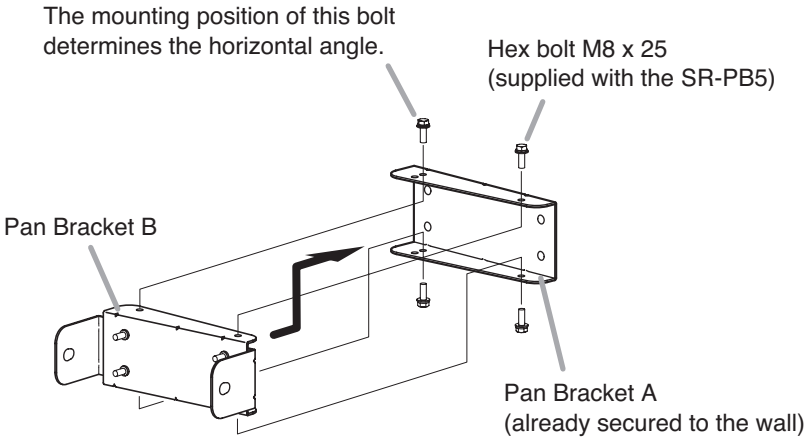
Notes

- Speaker's horizontal angle can be adjusted to 5° or 10° left or right.
- The diagrams below are viewed from upper side.



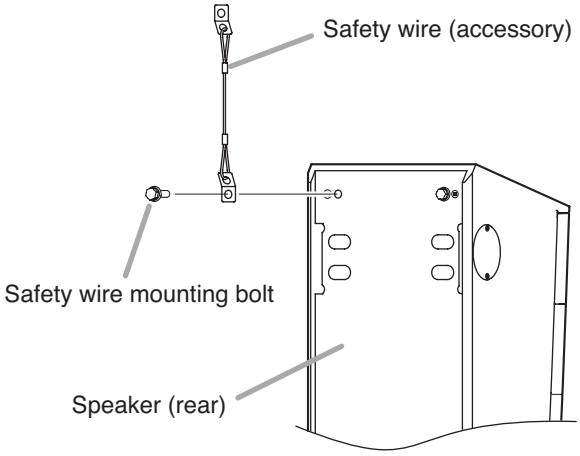






Step 5. Attach the supplied safety wire to the speaker.
Remove the safety wire mounting bolt on the speaker's rear panel, then fix the safety wire to the speaker using the removed bolt.

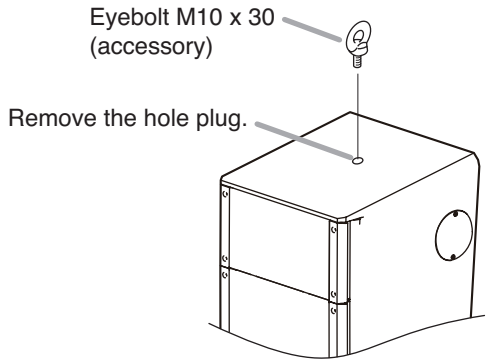
Note: Attach the safety wire on the side facing the safety wire anchor bolt installed in Step 1.



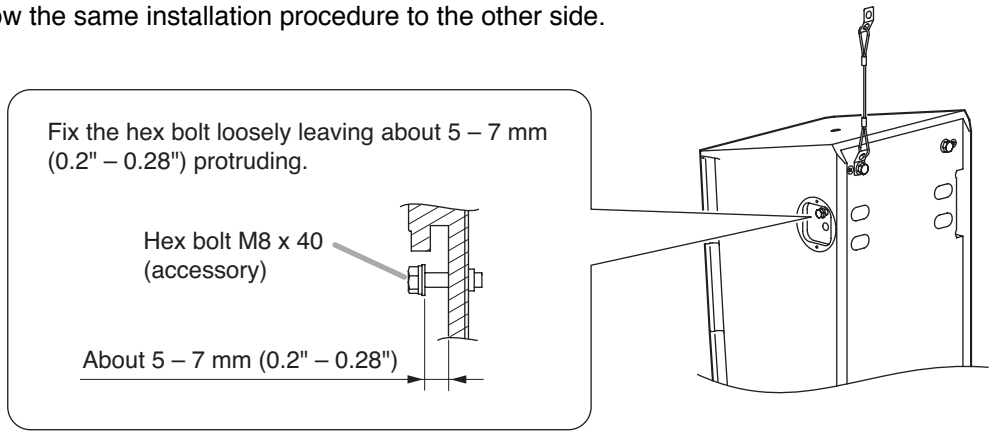
When using the supplied eye bolt at the speaker installation

Remove the hole plug on the speaker's top, then install the supplied eye bolt instead.

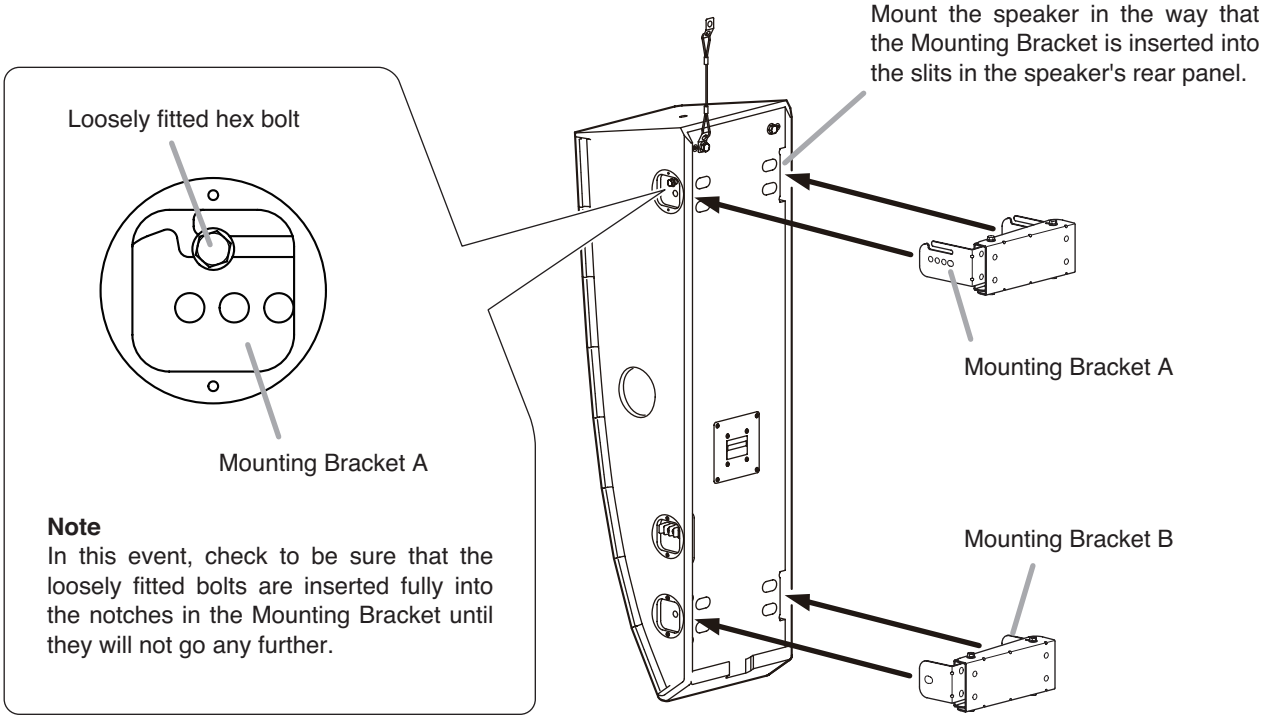
Note
As this eyebolt is for temporarily suspending the speaker at installation, never use this eyebolt for permanent installation of the speaker.



Step 6. Screw 2 supplied hex bolts loosely to the speaker.
Follow the same installation procedure to the other side.

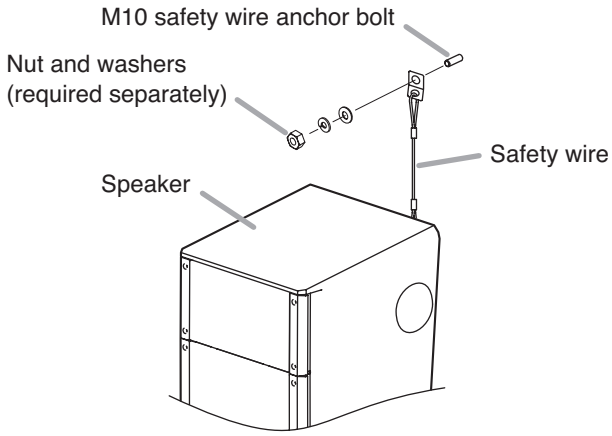


Step 7. Mount the speaker to the mounting brackets.
Mount the speaker in the way that the Mounting Brackets A and B secured to the wall are inserted into the slits in the speaker's rear panel.



Note
In this event, check to be sure that the loosely fitted bolts are inserted fully into the notches in the Mounting Bracket until they will not go any further.

Step 8. Install the safely wire to the wall.
Install the end of the safety wire attached to the speaker to the anchor bolt installed on the wall surface.



Step 9. Connect the speaker cable to the input terminal.
For the connection procedure, refer to p. 8, "Input Terminal Connection."

Step 10. Determine the speaker's downward angle, then fix the speaker with the supplied hex bolts.

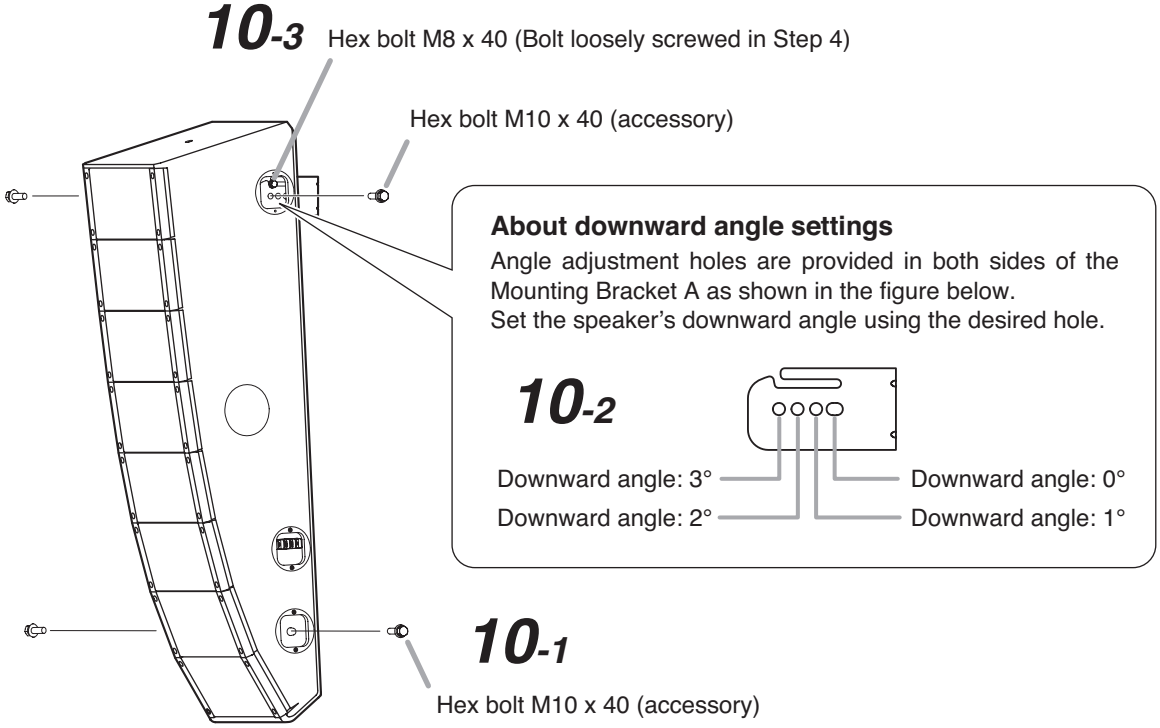
10-1. Fix the Mounting Bracket B (lower side of the speaker) loosely with the supplied hex bolts.
Fit it loosely to the extent that the speaker can be inclined when adjusting the speaker angle.

10-2. Adjust the speaker's downward angle with the Mounting Bracket A (upper side of the speaker).

Note: Refer to p. 13, "Coverage area" to determine the downward angle that corresponds to the mounting height of the speaker to be installed.

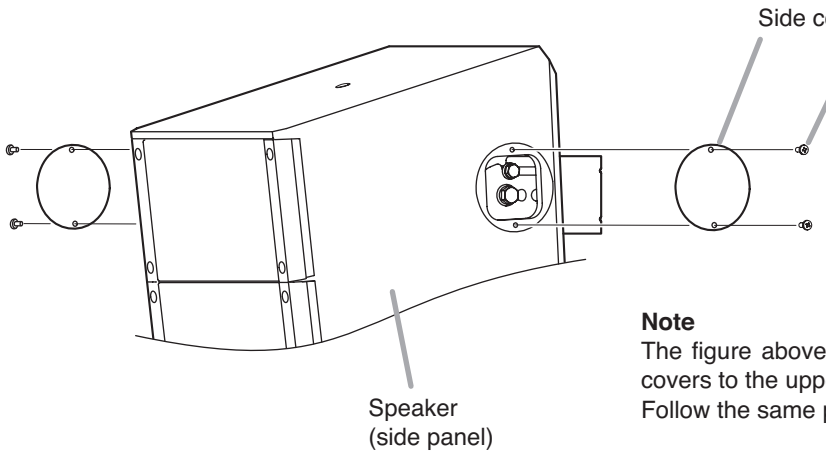
10-3. Tighten all 6 hex bolts loosely screwed into the Mounting Brackets A and B.

Note: Check that all bolts are securely tightened.



Step 11. Attach the supplied side covers.

Attach the supplied side covers to the upper side (Mounting Bracket A side), the lower side (Mounting Bracket B side), and the input terminal section. (5 points)



Note

The figure above shows an example for attaching the covers to the upper side (Mounting Bracket A side). Follow the same procedure to attach other side covers.

10.SPECIFICATIONS

10.1. SR-T5 Line Array Speaker

Enclosure	Bass-reflex type
Power Handling Capacity	Continuous pink noise: 250 W, Continuous program: 750 W
Rated Impedance	8 Ω
Sensitivity	96 dB (1 W, 1-meter equivalent, measured at 4 m or 13.12 ft)
Frequency Response	70 - 20000 Hz
Crossover Frequency	3 kHz
Directivity Angle	Horizontal: 100 °, Vertical: 35 °
Speaker Component	Woofer: 13 cm (5.12") cone-type x 8 Tweeter: Balanced dome type x 24
Recommended Installation Height	4 – 5.5 m (13.12 – 18.04 ft) (Speaker top, when installed in sport facilities 30 m or 98.42 ft in length)
Angle Adjustment Range	Downward: 0º, 1º, 2º, 3º (when the supplied mounting bracket is used) Horizontal (left or right): 5º, 10º (when the optional SR-PB5 Wall Pan Bracket is used)
Input Terminal	M5 screw terminal, barrier spacing: 12.2 mm (0.48")
Finish	Enclosure: Plywood, black, urethane coating Baffle: Polypropylene, black Punched net: Rolled steel plate, black, acrylic paint Mounting bracket: Rolled steel plate, black, acrylic paint
Dimensions	310 (w) x 1239 (h) x 341 (d) mm (12.2" x 48.78" x 13.43")
Weight	29 kg (63.93 lb) (including accessories)
Optional Product	Wall Pan Bracket: SR-PB5 (to be used with SR-T5's accessory bracket) Matching Transformer: MT-S0601

Note: The design and specifications are subject to change without notice for improvement.

• **Accessories**

Mounting Bracket A 1
Mounting Bracket B 1
Side cover 5
Safety wire (20 cm or 7.87") 1
Hex bolt M10 x 40 (w/washer) 4
Eye bolt M10 x 30 1
Hex bolt M8 x 40 (w/washer) 2
Machine screw M4 x 10 (w/washer) 10

10.2. SR-PB5 Wall Pan Bracket (optional)

Applicable Speaker	SR-T5
Angle Adjustment Range	Horizontal (left or right): 5º, 10º
Finish	Rolled steel plate, black, paint
Weight	4.1 kg (9.04 lb) (including accessories)
Component Parts	Pan bracket A ..... 2, Pan bracket B ..... 2, Hex bolt M8 x 25 16

Note: The design and specifications are subject to change without notice for improvement.

Traceability Information for Europe

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Authorized representative:
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